

What is claimed:

1. A method for inducing angiogenesis in a mammal by administering an effective amount of a morphogenic protein; with the proviso that said morphogenic protein is not BMP-2 or GDF-5.

2. A method for improving the angiogenic inductive activity of a morphogenic protein in a mammal by coadministering with the morphogenic protein an effective amount of a morphogenic protein stimulatory factor.

3. The method according to claim 2, wherein the morphogenic protein stimulatory factor has additive effects on angiogenesis by the morphogenic protein.

4. The method according to claim 2, wherein the morphogenic protein stimulatory factor has synergistic effects on angiogenesis by the morphogenic protein.

5. The method according to any one of claims 1 to 4, wherein the morphogenic protein is an osteogenic protein that is capable of inducing angiogenesis.

6. The method according to any one of claims 1 to 4, wherein the morphogenic protein comprises an amino acid sequence selected from the group consisting of BMP-3, BMP-4, BMP-5, BMP-6, OP-1 (BMP-7), BMP-8, BMP-9, BMP-10, BMP-11, BMP-12, BMP-13, BMP-14, BMP-15, COP-5, COP-7 and an amino acid sequence variant thereof.

1, 6, 8, 10

7. The method according to any one of claims 1 to 4, wherein the morphogenic protein is a monomeric species.

8. The method according to claim 7, wherein the monomeric species is selected from the group consisting of OP-1, BMP-5, BMP-6, BMP-8, GDF-6, GDF-7 and amino acid sequence variants thereof.

9. The method according to any one of claims 1 to 4, wherein the morphogenic protein comprises a disulfide bonded dimeric species.

10. The method according to claim 9, wherein the dimeric species comprises a polypeptide selected from the group consisting of OP-1, BMP-5, BMP-6, BMP-8, GDF-6, GDF-7 and amino acid sequence variants thereof.

11. The method according to any one of claims 1 to 4, wherein the morphogenic protein is OP-1.

12. The method according to any one of claims 1 to 4, wherein the morphogenic protein is produced by the expression of a recombinant DNA molecule in a host cell.

13. The method according to any one of claims 2 to 4, wherein the morphogenic protein stimulatory factor comprises at least one compound selected from the group consisting of acidic fibroblast growth factor (aFGF), basic fibroblast growth factor FGF (bFGF), transforming growth factor- β (TGF- β), transforming growth factor- α (TGF- α), epidermal growth factor (EGF), vascular

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17. The method according to any one of claims 2 to 4, wherein the morphogenic protein and the morphogenic

protein stimulatory factor are administered
simultaneously to a target locus.

18. The method according to any one of claims 2 to 4,
wherein the morphogenic protein and the morphogenic
5 protein stimulatory factor are administered separately
to a target locus.

19. The method according to claim 17, wherein the
target locus is a vascular tissue defect.

20. The method according to claim 18, wherein the
10 target locus is a vascular tissue defect.

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